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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CERVETTI, DAVID GARCIA	
ART UNIT	**PAPER NUMBER**
2136	

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,432	ALMEIDA, JASON ROBERT	
	Examiner	Art Unit	
	David G. Cervetti	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments filed July 28, 2005, have been fully considered but they are not persuasive.

2. Claims 1-24 are pending and have been examined.

Response to Amendment

3. The objection to the abstract of the disclosure is withdrawn.

4. The objection to the specification is withdrawn.

5. Assuming arguendo that Bright et al. (US Patent Number: 6,141,756, hereinafter "Bright") does not expressly teach transitioning from a mode to a mode, Examiner submits that it would have been obvious to one of ordinary skill in the art to modify Bright to transition from one mode to another. Applicant expressly admits that these modes of operation were conventional and well known ("History of Related Art", pages 1-2) and Bright provides the architecture and the code, which responsive to successful decryption, controls execution of the processor (column 2, lines 1-67, column 4, lines 1-67).

6. However, Bright **expressly teaches** controlling execution of the processor in response to successful decryption (column 2, lines 1-67, column 4, lines 1-67), furthermore, Bright teaches providing three levels of security (column 3, lines 1-67).

7. Examiner has given the claims the broadest reasonable interpretation consistent with the specification. Accordingly, the claim language reads on the presented prior art references.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 4-5, 9-10, 12-13, 17-18, and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Bright.

Regarding claim 1, Bright et al. teach a computer program product comprising processor executable instructions for programming a non-volatile storage element in a data processing system, the instructions being stored on a computer readable medium (column 1, lines 60-67, column 2, lines 1-26, column 5, lines 24-32), comprising: computer code means for encrypting a digital signature using a first encryption key (column 3, lines 40-57); computer code means for passing the encrypted signature to a kernel routine (column 3, lines 58-67, column 4, lines 1-13); computer code means, responsive to successfully decrypting the encrypted signature using a second encryption key, for transitioning the data processing system from a protected-mode to a real-mode (column 4, lines 14-32); and real-mode computer code means for flash programming the non-volatile storage element (column 5, lines 1-13).

Regarding claim 2, Bright et al. teach wherein the code means for encrypting the digital signature is non-privileged code.

Regarding claim 4, Bright et al. teach wherein the first encryption key is a private key and the second encryption key is a public key, wherein the public key and private key are generated from a common algorithm.

Regarding claim 5, Bright et al. teach further comprising code means for generating the digital signature, wherein the digital signature includes information that is indicative of the data processing system (column 3, lines 46-57).

Regarding claim 9, Bright et al. teach a data processing system including at least one processor, memory, and input means connected to a common bus, wherein the system memory contains at least a portion of a sequence of computer executable instructions for programming a non-volatile storage element of the data processing system (column 1, lines 60-67, column 2, lines 1-26, column 5, lines 24-32), the instructions comprising: computer code means for encrypting a digital signature using a first encryption key (column 3, lines 40-57); computer code means for passing the encrypted signature to a kernel routine (column 3, lines 58-67, column 4, lines 1-13); computer code means, responsive to successfully decrypting the encrypted signature using a second encryption key, for transitioning the data processing system from a protected-mode to a real-mode (column 4, lines 14-32); and real-mode computer code means for flash programming the non-volatile storage element (column 5, lines 1-13).

Regarding claim 10, Bright et al. teach wherein the code means for encrypting the digital signature is non-privileged code.

Regarding claim 12, Bright et al. teach wherein the first encryption key is a private key and the second encryption key is a public key, wherein the public key and private key are generated from a common algorithm.

Regarding claim 13, Bright et al. teach further comprising code means for generating the digital signature, wherein the digital signature includes information that is indicative of the data processing system (column 3, lines 46-57).

Regarding claim 17, Bright et al. teach a method of programming a non-volatile storage element in a data processing system (column 1, lines 60-67, column 2, lines 1-26, column 5, lines 24-32), comprising: encrypting a digital signature using a first encryption key (column 3, lines 40-57); passing the encrypted signature to a kernel code routine (column 3, lines 58-67, column 4, lines 1-13); responsive to successfully decrypting the encrypted signature using a second encryption key, transitioning the data processing system from a protected-mode to a real-mode with the kernel code routine (column 4, lines 14-32); and flash programming the non-volatile storage element in real mode (column 5, lines 1-13).

Regarding claim 18, Bright et al. teach wherein encrypting the digital signature comprises encrypting the digital signature with non-privileged code.

Regarding claim 20, Bright et al. teach wherein the first encryption key is a private key and the second encryption key is a public key, wherein the public key and private key are generated from a common algorithm.

Regarding claim 21, Bright et al. teach further comprising generating the digital signature, wherein the digital signature includes information that is indicative of the data processing system (column 3, lines 46-57).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 3, 11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. as applied to claims 2, 10, and 18 respectively above, and further in view of Hughes (US Patent Number: 5,968,174).

Regarding claims 3 and 11, Bright et al. teach the limitations as set forth under claims 2 and 10 respectively above. Bright et al. do not disclose expressly wherein the code means for passing the encrypted signature to the kernel routine comprises code means for executing a system call from the non-privileged code and passing the signature as a parameter of the system call. However, Hughes teaches wherein the code means for passing the encrypted signature to the kernel routine comprises code means for executing a system call from the non-privileged code and passing the signature as a parameter of the system call (column 7, lines 28-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to execute a system call and pass a parameter to a system call. One of ordinary skill in the art would have been motivated to do so because it is well known in the art to execute a system call from the non-privileged mode and passing a value as a parameter to a system call.

Regarding claim 19, Bright et al. teach the limitations as set forth under claim 18 above. Bright et al. do not disclose expressly wherein passing the encrypted signature to the kernel routine comprises executing a system call from the non-privileged code and passing the signature as a parameter of the system call. However, Hughes teaches wherein passing the encrypted signature to the kernel routine comprises executing a system call from the non-privileged code and passing the signature as a parameter of the system call (column 7, lines 28-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to execute a system call and pass a parameter to a system call. One of ordinary skill in the art would have been motivated to do so because it is well known in the art to execute a system call from the non-privileged mode and passing a value as a parameter to a system call.

12. Claims 6-7, 14-15, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. as applied to claims 5, 13, and 21 respectively above, and further in view of Cuccia et al. (US Patent Number: 6,151,676).

Regarding claims 6, 14, and 22, Bright et al. teach the limitations as set forth under claims 5, 13, and 21 respectively above. Bright et al. do not disclose expressly wherein the digital signature is generated based at least in part upon dynamic information. However, Cuccia et al. teach wherein the digital signature is generated based at least in part upon dynamic information (column 8, lines 13-20). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to generate a digital signature from dynamic information. One of ordinary skill

in the art would have been motivated to perform such a modification to provide a way to authenticate a user (Cuccia et al., column 2, lines 34-40).

Regarding claims 7, 15, and 23, the combination of Bright et al. and Cuccia et al. teaches the limitations as set forth under claims 6, 14, and 22 respectively above. Furthermore, Bright et al. teach wherein the digital signature is generated at least in part based further upon information including a corresponding hostname and process ID (column 3, lines 50-52, a hash function).

13. Claims 8, 16, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. as applied to claims 1, 9, and 17 respectively above, and further in view of Cuccia et al.

Regarding claims 8, 16, and 24, Bright et al. teach the limitations as set forth under claims 1, 9, and 17 respectively above. Bright et al. do not disclose expressly further comprising code means for generating a random number as the digital signature. However, Cuccia et al. teach further comprising code means for generating a random number as the digital signature (column 8, lines 13-20). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to generate a random number as the digital signature. One of ordinary skill in the art would have been motivated to perform such a modification to provide a way to authenticate a user (Cuccia et al., column 2, lines 34-40).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Number 6,694,401 to Nalawadi et al. teaches transitioning between modes.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Cervetti whose telephone number is (571) 272-5861. The examiner can normally be reached on Monday-Friday 7:00 am - 5:00 pm, off on Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DGC

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Primary Examiner
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10/9/05